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#### Abstract

For management education in the public sector, skills are needed in many fields. As a result, subjects such as economics and law have gained a more central position. In this study, we will investigate what attitudes students at college in Norway have to the two disciplines of management and organisational theory, and economics. We will use factor analysis and personality traits in the analysis. Students find economics almost as important as management subjects in relation to their careers, but they consider economics harder to understand and less pleasing to learn. Students' attitudes also depend on gender and personal characteristics.

Keywords: career, economics, management, personality traits, public sector

#### 1. INTRODUCTION

There is a strong relationship between students' interest in a subject, the usefulness in the future career and their attitudes towards the course (Soper & Walstad, 1983).

The public sector has changed (Mutonyi et al., 2020). It has moved away from the traditional bureaucratic style to a more managerial approach. This puts pressure on the leaders (Ciobanu & Androniceanu, 2018) as they need to show results and be able to cope with changes. There is an expectation of quality of services and value for the money. This requires a high level of competence among managers. In addition to academic education, they must also be skilled leaders, be able to prioritise and be able to apply economics and law. This has led to increasing interest in further education among public employees.

In this study, we will analyse students' attitudes of those who take practice-oriented master's degrees in management at a business school in Norway. These are largely public employees with a background in the health and education sectors. They want to increase their formal competence in order to be better qualified for management positions in the public sector. There are significant differences between management students who prefer to work in public sector compare to those choosing private sector (Opstad, 2021a), Employees in public sector accept lower salaries in exchange for job security and personal contentment.

This article will focus on two disciplines. One is management and organisational theory. This is an important subject area for managers and the students have shown great interest in learning more about this topic. The second subject is economics. Due to limited resources and rising demands to manage them correctly, the need and interest in economics have been increasing in recent years. This study will compare the students' attitudes towards these two disciplines.

There is a lot of literature on students' attitudes to economics. However, few published articles (which we are aware of) have compared these subjects for this target group.

This is useful knowledge for school planners and employers. The students' study habits in the various subjects is based on their assessment of the benefits to and needs of their future careers (Soper & Walstad, 1983).

#### 1.1. The Big Five personality traits

In this research project, we will analyse how personal characteristics influence students' attitudes. As a research instrument, we will use the Big Five personality traits. This method was developed by Costa and McCrae (1992). It is highly recognised and is very widely used in articles published around the world. This personal taxonomy includes five domains: openness, consciousness, extraversion, agreeableness and emotional stability (see Table 1).

TABLE 1 - THE BIG FIVE MODEL

Trait	Description
Openness	The person tends to be open to new ideas and intellectual experiences
Consciousness	This characterises a person who works hard, is well organised and responsible
Extraversion	The individual is interested in the outer world and is outgoing, open and sociable
Agreeableness	This is categorised by being unselfish, enjoying cooperation and avoiding conflicts
Emotional stability	This involves being emotionally stable and not easily stressed or nervous

Source: Borghans et al. (2008)

#### 2. LITERATURE REVIEW AND HYPOTHESES

It is important to have trained personnel who are able to select and apply information correctly. This requires high competence (Van Wyk, 2016). Students' interests and attitudes are important factors for the choice of higher education and form the basis for future careers (Pillai & Joseph, 2016). Female students tend to believe management education has more impact in achieving career than the male students (Houldsworth et al.,2022).

Organization theory is a key factor for managers to learn more about strategic development, responsibility, improve performance, to cooperate and for decision making (Greenhaus et al.,2009). With more knowledge in this field, they achieve more insight into the topic. This gives them better skills to manage a business.

The public sector needs professional managers to ensure performance management (Fryer et al., 2009). Besides operations' management and leadership commitments, there is need for knowledge in accounting and economics (Chenhall & Langfield-Smith, 2007). This is useful expertise to ensure better resource utilisation in the public sector (Gulledge & Sommer, 2002). Many expect the public sector to provide the same standard of service as the private sector (Al Ahbabi et al., 2018). Even the main objectives are different from the private sector; the public sector is expected to deliver high-quality services efficiently. This requires a lot of knowledge that can be provided by taking further education. Knowledge is a key factor for creating value in an organisation. There is a strong link between knowledge management and innovation performance.

There is a pressure for delivering good public services. According to Syed et al. (2018) the public sector can solve this by applying Business Process Management (BMP). Such a focus requires expertise in organisational theory and business economics and socio-economic subjects.

Many students in management and business education are reluctant to study economics. They think it is a demanding subject compared to other disciplines (Balough & Raehsler, 2007). This affects their attitudes towards the subject.

Some authors claim there is a gender difference in attitudes towards economics. Females are less interested than males in studying this topic (Jensen & Owen, 2000). This can be due to many factors. Since economics is quantitatively oriented, one factor may be that females have weaker mathematics' skills. Another reason may be that females are generally less interested in the topics that are addressed in economics.

There is a close link between students' attitudes towards economics and understanding of economics (Walstad, 1980). Students who have acquired knowledge within one field tend to have a positive attitude towards learning more about this topic (Happ et al., 2016).

The willingness to learn economics may depend on a positive attitude towards the subject (Wyk, 2012). Students' attitudes towards economics and management are key factors. Positive attitudes towards a discipline create an interest in learning about this topic and leads to a greater positive learning environment and better

performance in the subject. Students with positive attitudes towards economics report that it is useful for their future careers. Many want to learn more about economics because they want to apply for jobs where knowledge and skills in this field are required to perform well. A large part of the student body finds economics demanding and difficult to study. For performing well in economics, a key factor might be students' cognitive skills (comprehension, knowledge, analysis and application).

There is a link between personality traits and the individual's behaviour. This influences the choice of work (Haylock & Kampkötter, 2019). Dohmen et al. (2008) report a positive relationship between trust and the two factors, agreeableness, and emotional stability. Economic preferences are associated with personal characteristics (Rustichini et al., 2016) Consciousness is characterised by a great self-control focus and not being easily distracted. Agreeableness involves being more positively prepared to cooperate with others. Extraversion tends to be optimistic, and this may explain why extroverts can take greater risks in the workplace.

#### 2.1. Hypotheses

Based on the literature review, we postulated the following hypotheses:

Hypothesis 1: There is a gender difference in management students' attitudes towards the economics subject and the organisation and management subject.

Several published articles show gender differences in attitudes towards different subjects, especially favouring males in economics (Johnson et al.,2014). Hirsch et al. (2013) report about gender differences in career opportunities. Men tend to focus more on salary and career, while women are more interest in working with people..

Hypothesis 2: Managers and non-managers in the public sector have different preferences between economics and management and organisational subjects.

It is believed that people who have administrative management jobs have different views since they know more about the usefulness of the subjects. Wanous et al. (2000) suggest employees with more knowledge tend to see things more from management perspectives.

#### Hypothesis 3: There is a link between attitudes towards economics and organisation and management.

Economics and management theory are linked together (Donaldson, 1990); Rumelt et al.,1991. Both management and economic knowledge can be critical factors for success as a leader in the public sector Therefore, it is reasonable to assume a positive link between attitudes towards economics and management related to the possibility of making a career.

Hypothesis 4: Attitudes towards economics, and organisation and management topics are correlated with personal characteristics.

Penn and Lent (2018) report personality traits are related to career decision making. Consciousness seems to be positive associated with career ambitions. In terms of interests and preferences, it is conceivable that there is also a negative correlation. Students who do not like economics may tend not to favour quantitative subjects such as organisational theory (Opstad & Årethun, 2020).

#### 3. METHODOLOGY AND DATA

#### 3.1. The sample

The survey is from autumn 2020. The questionnaire was distributed to students from the Western Norway University of Applied Science. Most students attended lectures and they responded to questionnaires. Fortynine students answered the questionnaire out of about 60 students. That was a relatively high response rate. The students were attending a master's degree in management. Most worked in the public sector, mainly in the health or education sectors. The majority were female, and a large proportion already held a leadership position (Table 2).

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TABLE 2 - DESCRIPTIVE STATISTICS: POSITION AND GENDER

	Manager	Non-Manager	All
Male	8	8	16
Female	17	13	30
All	25	21	46

Most students were older than 30 years (Table 3)

TABLE 3 - DESCRIPTIVE STATISTICS. AGE DISTRIBUTION

Age	Frequency	Per cent
Under 30 years	3	6.1
30-34 years	11	22.4
35–39 years	3	6.1
40-44 years	5	10.2
45–49 years	16	32.7
Over 50 years	11	22.4
	49	100

#### 3.2. Methodology

Previous published articles inspired the form of the questionnaire in terms of capturing different types of factors for the chosen subjects (Soper & Walstad,1983;Van Wyk, 2016). The focus of this research was on three factors: enjoyment (Enj), understanding (Un) and finally, value and career (VC). To ensure the questions fitted together in the survey, we applied a factor analysis. This led to some different questions for the two selected disciplines: economics, and organisation and management (see Table 4). Due to low loading, some questions are removed. The remaining items and the reliability scores were within accepted values. The values of the items were measured using a seven-point Likert scale, where 1 = strongly disagree and 7 = strongly agree.

TABLE 4 - FACTOR ANALYSIS

Dimension	Items	Loading	Cronbach's alpha
Enjoyment	I want to study economics	0.871	0.941
(EnjEc)	I like the course in economics	0.812	
	I am attracted to topics raised in economics	0.756	
	Studying economics is very satisfying	0.708	
	I am interested in economic topics	0.699	
Economics, value and	Economics addresses topics that are relevant to me	0.987	0.508
career	Knowledge in economics is useful to me in a job context	0.679	
(VCEc)	Knowledge in economics is useful for my future career	0.613	
Economics understanding (UnEc)	It is easy to understand topics that are addressed in economics	0.897	0.627
	It is easy to understand economic theory	0.786	
Organisation and	I like the organisation and management subject	0.958	0.910
management, enjoyment (EnjOrgMa)	I am attracted to topics that are addressed in the organisation and management subject	0.850	
	It is very satisfying to study organisation and management theory	0.846	
	I am interested in topics within organisation and management theory	0.756	
	I want to study more organisation and management theory	0.633	
Organisation and management, value and career (VCOrgMa)	Organisation and management address topics that are relevant to me	0.437	
Organisation and	It is easy to understand organisation and management	0.910	0.742
management, understand	theory		
(UnOrgMa)	It is easy to understand topics that are addressed in the organisation and management subject	0.874	
	It is easy to understand the reasoning and expressions in the organisation and management discipline	0.820	

The Big Five model is well used and has been tested for reliability and validity (O'Connor & Paunonen, 2007). Opstad (2020) has positive experiences of applying the Big Five to Norwegian students. Therefore, no separate factor analysis was performed for the Big Five personality taxonomy.

The statistical method for testing the hypotheses was the t-test and comparison of means as well as correlation analysis. There were too few observations to be able to conduct more advanced statistical analyses.

#### 4. FINDINGS

Table 5 shows the mean values of the key variables included in the analysis. Students reported higher values for usefulness and career relevance than for the other two variables. Furthermore, the organisation and management course received a higher score than the economics field. The average value for VCOrgMa was particularly high (6.24 where 7 is the maximum value).

TABLE 5 - DESCRIPTIVE STATISTICS, BIG FIVE VALUE AND ATTITUDES TOWARDS THE TWO SUBJECTS (ECONOMICS (EC), AND ORGANISATION AND MANAGEMENT (ORGMA), USING A SEVEN-POINT LIKERT SCALE)

N=47	Min	Max	Mean	St.dev.
Extraversion	2.0	7.0	4.80	1.15
Agreeableness	4.0	7.0	5.66	0.76
Consciousness	3.3	7.0	5.26	0.87
Emotional stability	3.0	7.0	5.17	1.05
Openness	2.5	6.5	4.68	1.02
EnjOrgMa	2.0	7.0	5.61	1.04
UnOrgMa	2.3	7.0	5.09	1.10
VCOrgMa	2.0	7.9	6.24	1.02
EnjEc	1.8	7.0	4.90	1.26
UnEc	2.0	7.0	4.13	1.19
VCEc	3.7	7.0	5.92	0.94
Ec: Economics, OrgN	la: Organisation and Mar	nagement, Enj: Enjoyme	nt, Un: Understanding, \	/C: Value and Career

Female students cited higher values for attitudes towards the non-quantitative subject (OrgMa). For the quantitative course (Ec), the situation was the opposite. The male students recorded higher values than females, but the impacts were not significant (Table 6). Hypothesis 1 was not confirmed.

TABLE 6 - T-TEST COMPARING THE MEAN VALUES OF FEMALES AND MALES

	Female	Male	Diff	St.error	Sign.level	
EnjOrgMa	5.75	5.29	0.46	0.33	0.176	
VCOrgMa	6.28	6.07	0.21	0.33	0.537	
UnOrgMa	5.23	4.74	0.21	0.40	0.604	
EnjEc	4.64	5.28	-0.62	0.40	0.125	
VCEc	5.84	6.00	-0.14	0.30	0.638	
UnEc	3.98	4.31	-0.33	0.36	0.433	

Managers assessed the value and usefulness value of binding with work higher for both subjects than for those who did not have a management position (Table 7). The impact was so great that the effect was statistically significant at the 5% level. However, the leaders reported less joy and understanding of economics than the others. For enjoyment, the gap was statistically significant. Hypothesis 2 was confirmed.

TABLE 7 - COMPARISON OF MEAN VALUES OF MANAGERS AND NON-MANAGERS USING THE T-TEST

	Manager	Non-Manager	Diff	St.error	Sign.level
EnjOrgMa	5.73	5.50	0.23	0.31	0.478
VCOrgMa	6.58	5.86	0.73	0.29	0.016**
UnOrgMa	5.22	4.98	0.23	0.33	0.491
EnjEc	4.58	5.28	-0.90	0.38	0.073*
VCEc	6.17	5.62	0.55	0.28	0.047**
UnEc	4.00	4.29	-0.29	0.35	0.423

<sup>\*\*\*</sup> p < 0.01, \*\* p < 0.05, \* p < 0.1.

The students showed a strong positive and significant link between attitudes towards economics and management regarding understanding, and value and career (see Table 8). The effect was also positive for enjoyment, but not significant. Hypothesis 3 was confirmed.

Notice, age was significantly positively correlated with the usefulness of the economics subject and the enjoyment of the organisation and management field. There was also a significant positive correlation between enjoyment and understanding for both fields.

TABLE 8 - CORRELATION COEFFICIENTS BETWEEN ATTITUDES TOWARDS ECONOMICS, AND ORGANISATION AND MANAGEMENT

	EnjOrgMa	VCOrgMa	UnOrgMa	EnjEc	VCEc	UnEc
EnjOrgMa	-					
CVOrgMa	0.180	-				
UnOrgMa	0.523***	0.064	-			
EnjEc	0.127	0.180	0.150	-		
VCEc	-0.095	0.292**	0.026	0.371**	-	
UnEc	0.137	0.043	0.423***	0.579***	0.313**	-
Age	0.256*	0.170	-0.033	0.071	0.246*	0.013

<sup>\*\*\*</sup> p < 0.01, \*\* p < 0.05, \* p < 0.1.

Table 9 shows that personality traits (Big Five) were related to students' attitudes towards the two subjects in this analysis. Enjoyment in the non-quantitative course (OrgMa) was significantly correlated to openness, while enjoyment in the quantitative course was negatively associated with agreeableness. Value and career were positively connected to consciousness for both disciplines. In addition, this variable was positively related to emotional stability regarding economics. For both courses, there was a positive relationship between understanding and openness. Furthermore, understanding in OrgMa was positively related to extraversion, while understanding in Ec was positively related to emotional stability and negatively to agreeableness. All these links were statistically significant and confirmed hypothesis 4.

TABLE 9 - CORRELATION COEFFICIENTS BETWEEN THE BIG FIVE PERSONALITY TRAITS AND ATTITUDES TOWARDS THE TWO SUBJECTS (ECONOMICS, AND ORGANISATION AND MANAGEMENT)

	Extraversion	Agreeableness	Consciousness	Emotional stability	Openness
EnjOrgMa	0.019	0.026	0.221	-0.081	0.252*
VCOrgMa	-0.143	0.160	0.407***	-0.003	0.239
UnOrgMa	0.299*	-0.066	0.207	0.135	0.339**
EnjEc	-0.008	-0.344**	-0.080	0.176	0.256
VCEc	-0.032	0.244	0.320**	0.355**	0.145
UnEc	0.225	-0.339**	-0.087	0.325**	0.237*

<sup>\*\*\*</sup> p < 0.01, \*\* p < 0.05, \* p < 0.1.

#### 5. DISCUSSIONS

The results of this analysis are largely in line with previous research. However, this study provides greater insight into an important topic such as further education. We will take a closer look at some key factors.

#### 5.1. Gender and managers (Hypotheses 1 and 2)

The findings of this study may indicate that there are certain gender differences in students' attitudes towards the two subjects, economics, and organisation and management, but the effect was not statistically significant. Many researchers claim males favour working with objects, while females seem to prefer working with people (Opstad, 2021a; Su et al., 2009). Female business students prefer non-quantitative courses to a greater degree than male students, who tend to favour quantitative courses. This may be due to different personal characteristics (Opstad & Fallan, 2010) or sociocultural conditions (Johnson et al., 2014). However, there are many indications that the traditional gender differences have narrowed. Opstad (2020, 2021b) found for instance, no gender difference among business students in attitudes towards statistics and mathematics.

Public sector leaders have said that both subjects involved in this investigation are very useful and important for their careers. The average value was very high (well above 6 where 7 is the maximum value). Public

servants who do not have a managerial position report significantly lower values. One possible explanation may be that it is only when they enter a leadership position that they realise the usefulness of these subjects. They report this despite not liking economics more than non-manager employees. This finding shows that these subjects are important for educating future public sector leaders.

## 5.2. The relationship between attitudes towards economics, and organisation and management (Hypothesis 3)

In the literature, it is pointed out that it can be demanding to be a leader in the public sector. The public sector is changing. A leader must be skilled in many areas. A public manager must have the right skills and knowledge to be able to perform well (Bauwens et al., 2021; Elliot, 2020). There is a great need for learning and development. In such a context, it is reasonable to assume that a leader must focus on management theory and be able to practice economic reasoning. These two factors are connected to each other. A manager cannot choose but must master to succeed. This explains why students' attitudes towards the two disciplines are positive regarded.

Students' enjoyment is closed linked to motivation and effort. This leads to more learning and better performance (Hayat et al., 2020). The results of this survey are in line with this reasoning. The pleasure of studying leads to gaining knowledge and mastering the subject better.

The reason for the positive correlation between age and assessment of the value of the subject related to career context may be because older students have more experience and know better the need for knowledge and skills in economics and management.

#### 5.3. Attitudes and personality traits (Hypothesis 4)

The findings of connections between personality traits and attitudes towards the chosen subjects were consistent with previous research. Obschonka and Stuetzer (2017) suggested that consciousness is related to hard work, ambitions and targeted efforts. People with such qualities are happy to want management positions with higher salaries. Hence, there is a positive correlation between the wish for a high salary and consciousness (Opstad, 2021c). People who score highly in agreeableness have different preferences. Opstad (2021c) suggested that there is a negative correlation between high salary and agreeableness. These individuals place less emphasis on achieving their own benefits. This study confirms these effects. Openness is characterised by being curious and wishing to acquire new knowledge. Therefore, it is no surprise that this research found a positive link between openness and understanding.

Economics is perceived as being more difficult and demanding than the management subjects (Balough & Raehsler, 2007). For this reason, it may be that many people are reluctant to study this topic. This affects the attitude in general. Students with high anxiety will therefore have negative attitudes towards the subject of economics. That is why some participants lose interest in the subject. They acquire less knowledge, and they apply for positions where there is less need for financial knowledge. Therefore, people who are not bothered with anxiety will have a more positive attitude towards the subject of economics. This may explain why there was a positive relationship between emotional stability and understanding as well as the usefulness of economics, but not for management and the subject of organisation.

#### 6. CONCLUSIONS

This research shows that students aiming for management jobs in the public sector see the necessity of studying economics in addition to traditional management subjects. This was highlighted by questioning management students at a college in Norway. The candidates stated that economics was very important for their careers. Those who were already in a management role believes that it was especially necessary to learn about economic tools. Some students found economics difficult and they tended to give this subject lower scores. Students' attitudes varied slightly depending on gender and personality traits (Big Five).

The findings of this study are interesting in light of the fact that many management education programmes in Norway have no provision within the economic discipline. Given the challenges and demands facing the public

sector, the various education institutions should consider and evaluate which subjects should be included in the students' portfolio and different study programmes.

#### 7. LIMITATIONS AND FUTURE DIRECTIONS

This study has some limitations since data were only collected from a university in Norway. Nevertheless, the results are of general interest. Further research needs to address several subjects that are part of such study programmes. Furthermore, this research should be followed up by asking students who have graduated and have practices what that they have learned.

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